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Amendments to the Claims

Listing of Claims

Claim 1. (Canceled).

Claim 2. (Canceled).

Claim 3. (Canceled).

Claim 4 (Currently amended). The method ~~as claimed in claim 3~~ for transmitting and receiving the information with low Bit Error Rate (BER) in the presence of interference wherein the unique address of the station, also referred to hereinafter as "Unique Address Code" (UAC) (station identification code) and the unique code used to encode the information "1" bits, also referred to hereinafter as "Encoded Information Group" (EIG), are assigned to each station; the Unique Address Code (UAC) is represented as a binary code, the information is transmitted digitally, each information "1" bit is converted into an Encoded Information Group (EIG) of bits, the Encoded Information Group (EIG) is comprised of a sequence of regularly interchanging "1" and "0" bits with different durations; the Unique Address Code (UAC) signal is a pilot signal and is continually transmitted during the time interval while the information is transmitted; the information signal is placed in the Unique Address Code (UAC) and in the time intervals where the Unique Address Code bits have a "0" value; the Unique Address Code (UAC) and the information are transmitted on the same clock rate and the same carrier frequency, for transmitting and receiving the information in the simplex (one way) operation (broadcast) between a base station and subscribers stations ~~further~~ comprising: the receiver device of the subscriber station that receives the information is tuned-in to the Unique Address Code (UAC) as well as to the Encoded Information Group (EIG) of the base station; ~~corresponding transmitter device~~ the receiver device of the subscriber station attempts to detect the Unique Address Code (UAC) of the base station; ~~corresponding transmitter device,~~ the Number of Continuous Clock Rate Periods, also referred to hereinafter as (NCCRP), of the Reference Signal, also referred to hereinafter as Reference Signal (RS), that continually match that of the incoming signal acts as criterion for Unique Address Code detection, the Reference Signal (RS) is generated in the receiver device of the subscriber station and acts as a copy of the Unique Address Code (UAC) of the base station; ~~transmitter device,~~ and a match of the Reference Signal (RS) with the incoming signal is achieved if this match occurs with each of the "1" bits of the Reference Signal (RS), a match can either be perfect or imperfect, a perfect match is when the Reference Signal (RS) matches exactly the incoming signal by phase, an imperfect match is when there is a time delay between the two signals and where such delay is not greater than the duration of "1" bit of the Reference Signal (RS).

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Claim 5 (Currently amended). The method as claimed ~~it is described~~ in claim 4, for detection of the Unique Address Code (UAC) of the base station, ~~corresponding transmitter device,~~ further comprising: a Threshold Value of Matches, also referred to hereinafter as (TVM), is assigned to the Number of Continuous Clock Rate Periods (NCCRP); the Number of Continuous Clock Rate Periods (NCCRP), of the Reference Signal that match the incoming signal, is being measured; and when the measured value (as a number) of the Number of Continuous Clock Rate Periods (NCCRP) exceeds the assigned number of the Threshold Value of Matches (TVM), then the Reference Signal Generator (RSG) of the receiver device of the subscriber station is synchronized with the base station, ~~Reference Signal Generator (RSG) of the transmitter device,~~ synchronization is being performed by the Unique Address Code signal;

Claim 6 (Currently amended). The method as claimed ~~it is described~~ in claim 5, and the Reference Signal Generator (RSG) of the receiver device of the subscriber station is synchronized with the base station, ~~Reference Signal Generator (RSG) of the transmitter device~~, further comprising: a channel (or in the case of a software driven apparatus, a software control code is executed) in the receiver device of the subscriber station opens to receive and process the ~~actual~~ information; the useful (information) signal is separated from interference; the separation of the useful (information) signal from impulse interference and similarly from interference caused by different transmitter devices, is achieved by measuring the relative changes (voltage hopping) of the level of the incoming signal at the starting and ending instances of "1" bits of the Encoded Information Group (EIG), i.e. as the Reference Signal Generators (RSG) of the receiver device of the subscriber station and the base station ~~transmitter device~~ are synchronized the receiver device of the subscriber station knows at what instances the information bits ought to be, and by following the elevations and drops (Voltage Hops) that take place at the stat and end points of the "1" bits it finds the signal it needs; the separation of the useful (information) signal from harmonic (such as sign, cosign etc. based signals) interferences is achieved by deducting the level of harmonic interferences from the incoming signal, the level (voltage) of harmonic interference is detected in the instances of "0" bits of the Encoded Information Group (EIG), since as the RSG of the receiver device of the subscriber station and the base station ~~transmitter device~~ are synchronized, the receiver device of the subscriber station knows at what instances the "0" bits of Encoded Information Group (EIG) ought to be, in the instances of "0" bits of Encoded Information Group (EIG), the useful (information) signal is constantly equal to zero; and consequently, the useful (information) signal, separated from ~~noise and~~ interferences, enters the receiver's registering device.

Claim 7 **(Currently amended).** The method as claimed in claim ~~4~~ 4 a two-way wireless communication (duplex operation) between ~~a base station and at subscriber stations unit or between~~ two separate subscribers stations, further comprising: two frequencies such as f1 and f2, are supplied to transmit and receive information, all subscribers stations operate ~~work~~ on these two frequencies f1 and f2; under inactive status, all subscribers stations tune in and listen to detect their own Unique Address Codes (UACs) and their unique Encoded Information Group (EIG) in the incoming signal; and a search, conducted on the same

frequency, say, f1 attempts to detect the availability of its Unique Address Code (UAC) in the incoming signal.

Claim 8 **(Currently amended).** The method of a two-way communication between two separate subscribers stations, as claimed in claim 7, further comprising: when subscriber station A attempts to connect to subscriber station B, then subscriber station A switches its own receiver device over to the Unique Address Code (UAC) and the Encoded Information Group (EIG) of subscriber station B; first, receiver device of subscriber station A operating on frequencies f1 and f2, attempts to detect the availability of the Unique Address Code (UAC) of subscriber station B, if the Unique Address Code (UAC) is available, then subscriber station B is considered to be busy; and while subscriber station B is busy, the device of subscriber station A deliberately blocks its own transmitter device and the receiver's registering device, to disable subscriber station A from receiving information (which is not intended for subscribe station A) from subscriber station B, and similarly to not transmit information to subscriber station B.

Claim 9 (Currently amended). The method for two-way communication as claimed in claim 8, further comprising: whenever subscriber station B becomes free as detected by the absence of subscribe station B's Unique Address Code (UAC) in the incoming signal, then subscriber station A switches its own transmitter device over to frequency f1, and the receiver device to frequency f2; on the ~~carrier~~ frequency f1, subscriber station A transmits the Unique Address Code (UAC) of subscriber station B; when subscriber station B detects its Unique Address Code (UAC), it opens a channel to receive (or in the case of a software driven apparatus a software control code is executed) the ~~actual~~ information; subscriber station B synchronizes the Generator of the Reference Signal (RSG) of its own transmitter device and receiver device with the Reference Signal Generator (RSG) of the transmitter device of subscriber station A; synchronization is being performed by the Unique Address Code signal, which is generated in the Reference Signal Generator (RSG) of the transmitter device of subscriber station A; simultaneously subscriber station B tunes its transmitter device to the frequency f2 and transmits its Unique Address Code (UAC); and while detecting the Unique Address Code (UAC) of subscriber station B, subscriber station A's receiver device opens a channel to receive information, the Unique Address Code (UAC) of subscriber station B, detected by subscriber station A, implies that a direct communication between subscribers stations A and B is now possible and enabled, hence enabling the information exchange. (In duplex operation, the Unique Address Code (UAC) detection process and the separation of the useful (information) signal from interference ~~and noise~~ is achieved exactly in the same way as in one way ~~simplex~~ operation.

Claim 10 (Currently amended). The method for transmitting and receiving information as claimed in claim 9, in the two-way communication (duplex operation) further comprising: in duplex operation, when subscriber station A initiates the communications, the Reference Signal Generator (RSG) of both the transmitter and receiver devices of subscriber station B is synchronized with the Reference Signal

Generator (RSG) of the transmitter device of subscriber station A, the Unique Address Code (UAC) signal transmitted by subscriber station B and received by subscriber station A will time-delay behind the signal of the Reference Signal Generator (RSG) of subscriber station A's transmitter device, the amount of the time delay will depend on the physical distance between subscribers stations A and B, subscriber station A measures the amount of the time delay of the received signal; the distance between subscribers stations A and B is computed from the amount of the time delay between the two signals; the speed that subscriber station B ~~A~~ moves relative to subscriber station A ~~B~~ is computed from the changes of the amount of the time delay between the two signals; the directional aerial (antenna) of subscriber station A determines the direction of location of subscriber station B; the coordinates of subscriber station B's location are computed from the measured direction of location of subscriber station B as well as from the amount of the time delay between the two signals; when subscriber station B is in motion, then subscriber station A is able to determine the distance, coordinates, trajectory and the speed at which subscriber station B is moving relative to subscriber station A, these properties are computed from the measured value of direction and amount of time delay between the two signals and also from the measured value of changes of the amount of the time delay between the two signals; and when the subscriber station B is not moving, then subscriber station A is able to determine its own location, coordinates, trajectory and speed.

Claim 11 (Original). The method for transmitting and receiving information as claimed in claim 8, further comprising: a strong interference is simultaneously and intentionally transferred along with the information, to maintain the security of the transmission, consequently preserving the confidentiality of the transferred information.

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